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Federal Agencies

March 29, 2006

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Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 1654

Re: U.S. Utility Patent Application
Appl. No. 09/937,484; § 371 Date: January 23, 2002
For: **Use of a Lectin or Conjugates for Modulation of C-Fibre Activity**
Inventors: FOSTER *et al.*
Our Ref: 1581.0870000/TJS/LDB

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Credit Card Payment Form (PTO-2038) in the amount of \$1,020.00 to cover a three (3) month extension of time fee;
2. Petition for Extension of Time Under 37 C.F.R. § 1.136(a)(1);
3. Reply to Restriction Requirement and Election of Species (w/Exhibits A and B);
and
4. One (1) return postcard.

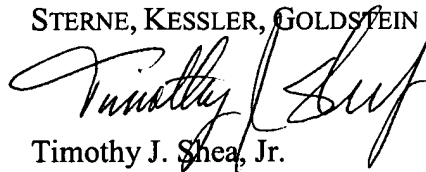
It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
March 29, 2006
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The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

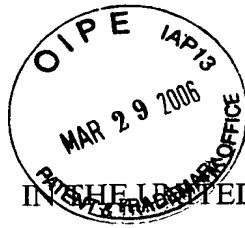
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Timothy J. Shea, Jr.", is written over the printed name.

Timothy J. Shea, Jr.
Attorney for Applicants
Registration No. 41,306

TJS/LDB:bac
Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

FOSTER *et al.*

Appl. No.: 09/937,484

Filed: January 23, 2002

For: **Use of a Lectin or Conjugates for
Modulation of C-Fibre Activity**

Confirmation No.: 2134

Art Unit: 1654

Examiner: Audet, Maury A.

Atty. Docket: 1581.0870000/TJS/LDB

Reply to Restriction Requirement and Election of Species

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the Office Action dated November 29, 2005, requesting an election of one invention to prosecute in the above-referenced patent application, Applicants hereby provisionally elect to prosecute the invention of claims 48-53, directed to methods for modulating C-fibre neuron activity by administering a *lectin*. The other pending claims, which are directed to methods for modulating C-fibre neuron activity by administering lectin conjugates (e.g., lectin coupled to a peptide or protein) either alone or in conjunction with a lectin, are hereby withdrawn. This election is made without prejudice to or disclaimer of the other claims or inventions disclosed.

I. Summary of the Telephonic Interviews

Applicants wish to thank Examiner Audet for the very helpful telephone interviews held on March 28, 2006, and March 29, 2006. During the interviews, Applicants' representative informed the Examiner that Applicants would elect for further prosecution the claims directed to methods for modulating C-fibre neuron activity by administering a *lectin* and pointed out that lectins are a class of molecules that all possess

a highly conserved binding site triad of amino acids and have a "lectin fold" consisting of three β sheets. The Examiner agreed with Applicants' representative that the highly conserved binding-site triad of amino acids could be the common technical feature of the elected lectin compounds for search purposes. However, the Examiner requested that Applicants' response to the Restriction Requirement be accompanied by a Declaration of an expert that demonstrated that the claimed genus of lectins all contain this distinctive feature. Further, the Examiner requested that Applicants provide the structure (i.e., sequence) of a specific lectin for purposes of the search. Finally, the Examiner requested that Applicants withdraw from consideration the claims reciting lectin conjugates. As explained more fully below, Applicants' reply is consistent with the agreement reached in the telephone interviews.

II. The Election of Invention and Species

This election is made with traverse. As discussed previously, it is Applicants' position that the Restriction Requirement is improper, since the claims are all related as lectin compounds and lectin conjugates all share a medicinal lectin as common technical feature. Nevertheless, in view of the telephone interviews conducted with the Examiner, and in the interests of advancing prosecution, Applicants have withdrawn claims 54-75 from consideration. Applicants assert that the elected lectin compounds are a well-recognized group of structurally and functionally related molecules that share common structural features. As a first structural feature, the lectins possess a highly conserved binding site triad of amino acids, which is known as the "Asp-Gly-Asn triad". The conserved Asp-Gly-Asn triad is disclosed, for example, in Svensson *et al. J. Mol. Biol.*

321: 69-83 (2002) (enclosed herein as Exhibit A). In particular, see page 75, left hand column. As a second structural feature, the elected lectins possess a "lectin fold", which consists primarily of three β -sheets:

- a "flat" six-membered "back" β -sheet;
- a small "top" β -sheet; and
- a curved, seven-stranded "front" β -sheet.

The "lectin fold" is described in detail in Chandra *et al. Prot. Engin. 14*: 857-866 (2001), enclosed herein as Exhibit B. See Figures 1 and 2 and pages 858-859. The "lectin fold" facilitates presentation of a substrate (sugar) to the lectin in a concave region of the "front" β -sheet. The highly conserved amino acid triad consisting of Asp, Asn and Gly is found within the "lectin fold."

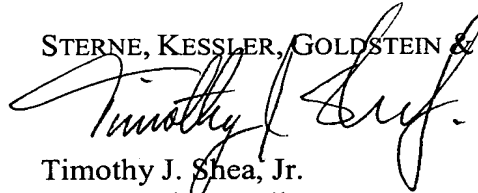
In response to the Examiner's request to elect a specific lectin for searching purposes, Applicants elect the *Erythrina cristagalli* lectin (ECL). The sequence for the ECL lectin is provided in Figure 2 of Exhibit A and comprises the triad: Asp89, Gly107 and Asn133. The complete ECL sequence will also be provided in a Declaration which will be submitted as soon as possible.

In view of the above comments, reconsideration and withdrawal of the Restriction Requirement, and consideration and allowance of all pending claims, are respectfully requested.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Timothy J. Shea, Jr.
Attorney for Applicants
Registration No. 41,306

Date: March 29, 2006

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